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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,352	03/26/2004	Koichi Shimokawa	p25056.dc2.doc	7559
7055	7590	04/25/2005		
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191				
			EXAMINER RESAN, STEVAN A	
			ART UNIT 1773	PAPER NUMBER
DATE MAILED: 04/25/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/809,352

Applicant(s)

SHIMOKAWA ET AL.

Examiner

Stevan A. Resan

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6-28-04;9-14-04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Art Unit: 1773

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-13 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a magnetic disc and a method of manufacturing magnetic discs having a carbon protective layer formed by plasma CVD and heated after coating by the lubricant, does not reasonably provide enablement for a disc or method not having this layer. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to obtain the benefits of the invention commensurate in scope with these claims.

The specification makes clear that "the effect of the present invention was found to result from the incorporation of -COOH atomic groups and/or $\text{-CF}_2\text{COOH}$ atomic groups into the lubricating layer", furthermore the passage points out that these groups only can come from a plasma CVD carbon layer. PGPUB [0079] and that "forming the lubricating layer of the present invention on a carbon-base protective layer and subjecting it to such a heat treatment PERMITS the suitable generation of -COOH and/or CF_2COOH atomic groups in the lubricating layer.

4. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

FOMBLIN ZTETROL and FOMBLIN ZDOL are trade names identifying a SOURCE rather than the products themselves. The composition of these products e.g. molecular weight distribution or proportion of a structure as in [Chem 1] may be altered by the manufacturer at any time without notice.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakaguchi et al US 6316062. in view of Gui et al US 6099937, Gui et al US 6548140 and Osawa et al US 2003/0100454.

Sakaguchi et al disclose a magnetic disc comprising a magnetic layer, a carbon protective layer formed by CVD (Col 54 lines 9-21,43-46) as in claim 5 and a lubricant layer equivalent to claimed layer c (See Col 55 Table 12 Test example 83- Note that the carbon layer was heated to 120 C (Col 54 lines 61-65) in the range of claim 4 and would therefore have injected -COOH groups into the lubricant layer c.

Sakaguchi et al do not teach the molecular weight range of the ZDOL or ZTETROL used.

However Gui et al US 6099937 and Gui 6548140 teach the molecular weight fractionation by supercritical extraction (as in claim 2) of these lubricants including the narrowing of the molecular weight distribution (polydispersity) See figures and claims.

Therefore it would have been obvious to one of ordinary skill in the art to subject these lubricants to fractionation to remove the high and low fractions to improve properties. Furthermore Ogawa et al teaches the fractionation of Z TETROL and arriving at a blend (i.e. c) of fractionated components as presently claimed lubricants a and lubricant b (A fractionated ZTETROL and B (fractionated ZDOL up to 10%). [0017]-[0022] .

Claim 6 is considered an intended use and therefor does not support patentability of the method or disc per se.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stevan A. Resan whose telephone number is 571-272-1513. The examiner can normally be reached on Tues-Thurs from 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney, can be reached at 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


STEVAN A. RESAN
PRIMARY EXAMINER